East Engin.
Library
TN
1
M58

Index of Feature Material —MATERIALS & METHODS

Volume 40, July-December 1954, Inclusive

Material covered in this index includes feature articles, MATERIALS & METHODS Manuals, and Engineering File Facts

VES (SEE WELDING AND JOINING)
UM AND ITS ALLOYS
Hardenable Metals (Materials & ethods Manual)—Oct, p 121
inum and Aluminum Alloy Temper signation System (File Fact)—Sept, 141
inum Extrusion Alloys, Two New—v, p 90
hining' Aluminum by Etching—Oct, 89
ls for Supersonic Aircraft and uided Missiles, Selecting—Dec, p 89
el Plating Aluminum—Jul, p 96
elain-Enamel Aluminum, Why—Sept, 107
Depositing Flux for Soldering Aluinum, New—Aug, p 86
ught Aluminum Alloys, New Standd Designations for (File Fact)—pt, p 139
G (SEE WELDING AND JOINING)
GS AND CASTING
y Steel Castings, Wrought Shapes mbined in Cast-Weld Construction Nov, p 136
Aluminum Bronzes (File Fact)—ec, p 135
ings, Close Tolerance (Materials & ethods Manual) Sept, p 121
nesium Casting Alloys for Elevated mperatures—Jul, p 87
Mold Castings, Gray Iron—Aug, 102
Die Cast Threaded Fasteners—Oct, 110
GS AND FINISHES
h Finish, Selecting A—Aug, p 96
h Plating Now Practical—Dec, p 98
mic-Coated Metals, Properties Of—ct, p 104
mics and Glass, How To Form and inish—Jul, p 104
and Precoated Metals (Materials & ethods Manual)—Dec, p 113
ticolor Lacquers—Nov, p 86
prene: Is It The Best All-Around rganic Coating?—Dec, p 93
kel Plating Aluminum—Jul, p 96
elain-Enamel Aluminum, Why?—pt, p 107
R, BRASS AND BRONZE
-Hardenable Metals (Materials & ethods Manual) Oct, p 121
Aluminum Bronzes (File Fact)—ec, p 135
per Alloy Bearings—Oct, p 97
OSION
rosion Resistance of Titanium in Hydrochloric and Sulfuric Acids—Nov, p 06
rosion Resistance of 12% Chromium eels, How Tempering Affects—Jul, 138
erials Problems in Nuclear Power Rectors—Jul, p 84
ctural Insulating Materials, New—ec, p 96
ar and Corrosion of Materials in High emperature Water—Aug, p 100
EERING FILE FACTS
minum and Aluminum Alloy Temper esignation System—Sept, p 141
Aluminum Bronzes—Dec, p 135
trical Properties of Some Metals, omparative—Aug, p 123
Cutting Steels, Properties of—Jul, p 33
inated Plastics—Specifications for—ov, p 131
and Lead Alloys—Hard Lead—Oct, 141
Lead and Lead Alloys—Soft Lead—Oct, p 139
Nominal Compositions of Typical High Strength Heat Resisting Alloys and Limited Stress Rupture Data—Jul, p 137
Special Atmosphere Graph for Heat Treatment—Nov, p 135
Stainless Steels, Government Specification Charts for—Dec, p 131
Strengths and Densities of Some Engineering Materials, Relative—Oct, p 143
Styrene Plastics—Sept, p 143
Thermal Conductivity Conversion Charts—Aug, p 125
Woods, Strengths of American—Jul, p 135
Wrought Aluminum Alloys, New Standard Designations for—Sept, p 139

FASTENERS (see WELDING AND JOINING)

FORMING AND FORMED SHAPES
Ceramics and Glass, How To Form and Finish—Jul, p 104
'Machining' Aluminum by Etching—Oct, p 89
Titanium, Which Method for Deep Drawing—Sept, p 98

GENERAL
Materials Department, Ten Laws of A—Aug, p 77
Metals for Supersonic Aircraft and Guided Missiles, Selecting—Dec, p 89

HEAT TREATMENT AND HEATING
Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Corrosion Resistance of 12% Chromium Steels, How Tempering Affects—Jul, p 138
Special Atmosphere Graph for Heat Treatment (File Fact)—Nov, p 135

HIGH TEMPERATURE MATERIALS
Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Fasteners for High Temperature Service—Sept, p 104
Magnesium Casting Alloys for Elevated Temperatures—Jul, p 87
Nominal Compositions of Typical High Strength Heat Resisting Alloys and Limited Stress Rupture Data (File Fact)— Jul, p 137
Refractory Hard Metals, New (Borides and Aluminides)—Aug, p 90
Sandwich Materials for High Temperature Uses—Nov, p 92
Silicon Carbide, Specially Bonded—Nov, p 83
Structural Insulating Materials, New—Dec, p 96
Thermal Conductivity Conversion Charts (File Fact)—Aug, p 125
Wear and Corrosion of Materials in High Temperature Water—Aug, p 100

IRONS
Castings, Close Tolerance (Materials & Methods Manual)—Sept, p 121
Ingot Iron and Wrought Iron (File Fact)—Aug, p 127
Shell Mold Castings, Gray Iron—Aug, p 102

LEAD
Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Lead and Lead Alloys—Hard Lead (File Fact)—Oct, p 141
Lead and Lead Alloys—Soft Lead (File Fact)—Oct, p 139

MAGNESIUM
Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Magnesium Casting Alloys for Elevated Temperatures—Jul, p 87

MANUALS, MATERIALS & METHODS
Adhesive Bonding—Nov, p 113
Age-Hardening Metals—Oct, p 121
Castings, Close Tolerance—Sept, p 121
Clad and Precoated Metals—Dec, p 113
Mechanical Properties and Tests—Jul, p 109
Nuclear Radiation Affects Engineering Materials, How—Aug, p 109

NICKEL AND ITS ALLOYS
Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Nickel Plating Aluminum—Jul, p 96

NONFERROUS METALS
Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Castings, Close Tolerance (Materials & Methods Manual)—Sept, p 121
Clad and Precoated Metals (Materials & Methods Manual —Dec, p 113
Electrical Properties of Some Metals Comparative (File Fact)—Aug, p 123
Nominal Compositions of Typical High Strength Heat Resisting Alloys and Limited Stress Rupture Data (File Fact)—Jul, p 137
Nuclear Radiation Affects Engineering Materials, How (Materials & Methods Manual)—Aug, p 109
Refractory Hard Metals, New (Borides and Aluminides)—Aug, p 90
Semiconducting Materials, Lead to New, Wider Uses—Nov, p 102
Semiconductors, What They Are, How They Work—Jul, p 92
Strengths and Densities of Some Engineering Materials, Relative (File Fact)—Oct, p 142
Wear and Corrosion of Materials in High Temperature Water—Aug, p 100

NONMETALLIC MATERIALS (OTHER THAN PLASTICS)
Ceramics and Glass, How to Form and Finish—Jul, p 104
Glass Powder Shapes, Pressed and Sintered—Oct, p 94
Refractory Hard Metals, New (Borides and Aluminides)—Aug, p 90
Silicon Carbide, Specially Bonded—Nov, p 83
Strengths and Densities of Some Engineering Materials, Relative (File Fact)—Oct, p 142
Structural Insulating Materials, New—Dec, p 96
Synthetic Micas, Three Forms of—Aug, p 80
Thermal Conductivity Conversion Charts (File Fact)—Aug, p 125
Thermoplastic Impregnated Cloth—Sept, p 102
Vulcanized Fibre: New Look at an Old Plastic—Sept, p 110
Woods, Strengths of American (File Fact)—Jul, p 135

NUCLEAR REACTOR MATERIALS
Materials Problems in Nuclear Power Reactors—Jul, p 84
Nuclear Radiation Affects Engineering Materials, How (Materials & Methods Manual)—Aug, p 109
Wear and Corrosion of Materials in High Temperature Water—Aug, p 100

PLASTICS
Adhesive Bonding (Materials & Methods Manual)—Nov, p 113
Epoxy Resins for Laminated Tooling, Why—Aug, p 93
Filled Teflon for Dry Bearings—Oct, p 112
Injection Molding Material, A Low Cost—Oct. p 144

(Continued on page 240)

Index . . . (continued)

Laminated Plastics, Specifications for—Nov, p 131
Plastic Embedded Miniature Unit Circuits Jul, p 90
Plastics Tooling—Its Place In Industry, Part I—Dec, p 106
Polyethylene, Irradiated—Sept, p 91
Pre-Mixed Powder Simplifies Forming of Silicone Foams—Dec, p 102
Sandwich Materials for High Temperature Uses—Nov, p 92
Silicone Laminating Resins, Three New —Jul, p 98
Styrene Plastics (File Fact)—Sept, p 143
Thermoplastic Impregnated Cloth—Sept, p 102
Vulcanized Fibre: New Look at an Old Plastic—Sept, p 110
Wire Screw Thread Inserts Improve Molded Plastic Design—Aug, p 128

POWDER METALLURGY

Chomium-Nickel Alloy Steel Powders for High Strength Parts—Oct, p 107
Drawn Shapes from Metal Powders Now Possible—Jul, p 101

STEELS

Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Alloy Steel Castings, Wrought Shapes Combined in Cast-Weld Construction —Nov, p 136
Arc Weld Repairs on High Speed Tool Steel—Sept, p 144
Castings, Close Tolerance (Materials & Methods Manual)—Sept, p 121
Chromium-Nickel Alloy Steel Powders for High Strength Parts—Oct, p 107
Clad and Precoated Metals (Materials & Methods Manual)—Dec, p 113
Corrosion Resistance of 12% Chromium Steels, How Tempering Affects—Jul, p 138
Electrical Properties of Some Metals, Comparative (File Fact)—Aug, p 123
Free Cutting Steels, Properties of (File Fact)—Jul, p 133
Graphitization in Steel—Nov, p 96
Metals for Supersonic Aircraft and Guided Missiles, Selecting—Dec, p 89
Nominal Compositions of Typical High Strength Heat Resisting Alloys and Limited Stress Rupture Data (File fact)—Jul, p 137
Nuclear Radiation Affects Engineering Materials, How (Materials & Methods Manual—Aug, p 109
Stainless Steels, Government Specification Charts for (File Fact) Dec, p 131
Strengths and Densities of Some Engineering Materials, Relative (File Fact) —Oct, p 142
Structural Steels, New Super-High Strength—Oct, p 100
Tool Steels, New Sulfur-Bearing—Sept, p 96
Wear and Corrosion of Materials in High Temperature Water—Aug, p 100

TESTING AND INSPECTION

Mechancal Properties and Tests (Materials & Methods Manual)—Jul, p 109
Radiography with Cobalt 60, Automatic —Sept, p 108
Ultrasonic Flaw Detection, How to Check Accuracy of—Nov, p 100

TITANIUM

Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Avoid Embrittling Titanium During Acid Pickling, How to—Dec, p 105
Corrosion Resistance of Titanium in Hydrochloric and Sulfuric Acids—Nov, p 106
Metals for Supersonic Aircraft and Guided Missiles, Selecting—Dec, p 89
Titanium, Which Method for Deep Drawing—Sept, p 98

WELDING AND JOINING

Adhesive Bonding (Materials & Methods Manual)—Nov, p 113
Adhesives Solve Camera Assembly Problems, How—Aug, p 84
Alloy Steel Castings, Wrought Shapes Combined in Cast-Weld Construction —Nov, p 136
Arc Weld Repairs on High Speed Tool Steel—Sept, p 144
Fasteners for High Temperature Service —Sept, p 104
Tin-Depositing Flux for Soldering Aluminum—Aug, p 86
Welding Electrodes, Selecting by Performance—Dec, p 136
Zinc Die Cast Threaded Fasteners—Oct, p 110

ZINC

Zinc Die Cast Threaded Fasteners—Oct, p 110

Author's Index

Albert, Gerard A., Vulcanized Fibre: New Look at an Old Plastic—Sept, p 110
Bomberger, H. B., Avoid Embrittling Titanium During Acid Pickling, How To—Dec, p 105
Bricker, B. C., Porcelain-Enamel Aluminum, Why?—Sept, p 107
Burch, D. C., Tin-Depositing Flux for Soldering Aluminum—Aug, p 86
Campbell, John B., Clad and Precoated Metals (Materials & Methods Manual) —Dec, p 113
Mechancial Properties and Tests (Materials & Methods Manual)—Jul, p 109
Multicolor Lacquers—Nov, p 86
Polyethylene, Irradiated—Sept, p 91
Delmonte, John, Epoxy Resins for Laminated Tooling, Why—Aug, p 93
Ernst, W. A., Plastic Embedded Miniature Unit Circuits—Jul, p 90
Everhart, John L., Age-Hardenable Metals (Materials & Methods Manual)—Oct, p 121
Fasteners for High Temperature Service—Sept, p 104
Refractory Hard Metals, New (Borides and Aluminides)—Aug, p 90
Finlay, W. L., Avoid Embrittling Titanium During Acid Pickling, How To—Dec, p 105
Franklin, Benjamin, Wire Screw Thread Inserts Improve Molded Plastic Design—Aug, p 128
Freeman, A. J., Thermoplastic Impregnated Cloth—Sept, p 102
Gillespie, R. G., Titanium, Which Method for Deep Drawing—Sept, p 98
Glatter, J., Wear and Corrosion of Materials in High Temperature Water—Aug, p 100
Gorden, E., Chromium-Nickel Alloy Steel Powders for High Strength Parts—Oct, p 107
Grossman, Nicholas, Ultrasonic Flaw Detection, How to Check Accuracy of—Nov, p 100
Gulliksen, J. Walter, Titanium, Which Method for Deep Drawing—Sept, p 98
Haas, R. E., Alloy Steel Castings, Wrought Shapes Combined in Cast-Weld Construction—Nov, p 136
Hall, A. M., Graphitization in Steel—Nov, p 96
Harple, W. H., Corrosion Resistance of Titanium in Hydrochloric and Sulfuric Acids—Nov, p 106
Hausner, Henry H., Materials Problems in Nuclear Power Reactors—Jul, p 84
Hile, Jack, Radiography with Cobalt 60, Automatic—Sept, p 108
Horvick, Ernest W., Zinc Die Cast Threaded Fasteners—Oct, p 110
Katz, Irving, Sandwich Materials for High Temperature Uses—Nov, p 92
King, B. W., Ceramic-Coated Metals, Properties of—Oct, p 104
Knopp, W. V., Chromium-Nickel Alloy Steel Powders for High Strength Parts—Oct, p 107
Lawson, T. R., Jr., Semiconductors, What They Are, How They Work—Jul, p 92
Leeser, D. O., Nuclear Radiation Affects Engineering Materials, How (Materials & Methods Manual)—Aug, p 109
McKnight, William H., Glass Powder Shapes, Pressed and Sintered—Oct, p 94
Merrill, Theodore B., Semiconducting Materials Lead to New, Wider Uses—Nov, p 102
Synthetic Micas, Three Forms of—Aug, p 80
Mohler, J. B., Copper Alloy Bearings—Oct, p 97
Nehrenberg, A. E., Structural Steels, New Super-High Strength, Oct, p 100
Peterson, R. O., Brush Finish, Selecting A—Aug, p 96
Renfrew, M. M., Thermoplastic Impregnated Cloth—Sept, p 102
Ricklin, S., Filled Teflon for Dry Bearings—Oct, p 112
Riley, M. W., Castings, Close Tolerance (Materials & Methods Manual)—Sept, p 121
Nickel Plating Aluminum—Jul, p 96
Plastics Tooling—Its Place In Industry, Part I—Dec, p 106
Rose, Kenneth, Arc Weld Repairs on High Speed Tool Steel—Sept, p 144
Ceramics and Glass, How to Form and Finish—Jul, p 104
Injection Molding Material, A Low Cost —Oct, p 144
Magnesium Casting Alloys for Elevated Temperatures—Jul, p 87
Shell Mold Castings, Gray Iron— p 102
Welding Electrodes, Selecting by Performance—Dec, p 136
Rubinstein, Marvin, Brush Plating Practical—Dec, p 98
Sanz, Manual C., 'Machining' Aluminum by Etching—Oct, p 89
Scanlan, J. P., Drawn Shapes from Metal Powders Now Possible—Jul, p 101
Seymour, R. B., Neoprene: Is It the All-Around Organic Coating?—Dec
Shaw, J. D., Chromium-Nickel Alloy Steel Powders for High Strength Parts— p 107
Shaw, Spencer L., Metals for Supersonic Aircraft and Guided Missiles, Selecting— Dec, p 89
Simon, A., Corrosion Resistance of 12% Chromium Steels, How Tempering Affects—Jul, p 138
Simpkins, R. L., Tin-Depositing Flux for Soldering Aluminum—Aug, p 86
Steinitz, R., Drawn Shapes From Metal Powders Now Possible—Jul, p 101
Thielsch, Helmut, Adhesive Bonding Materials & Methods Manual)—Nov,
Vordahl, M. B., Avoid Embrittling Titanium During Acid Pickling, How To— p 105
Westphal, R. C., Wear and Corrosion of Materials in High Temperature Water— Aug, p 100
Weyer, D. E., Pre-Mixed Powder Simplifies Forming of Silicone Foams—Dec,
Williamson, M. A., Materials Department Ten Laws Of A—Aug, p 77
Wroten, W. L., Silicon Carbide, Sp Bonded—Nov, p 83
Zaleski, F. I., Drawn Shapes From Metal Powders Now Possible—Jul, p 101